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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,801	02/22/2002	Joel R. Williams	DISKSYS	1755
7590	04/07/2005		EXAMINER	
JOEL R. WILLIAMS 1240 MCKENDRIE ST. SAN JOSE, CA 95126			AST, FATIMA M	
			ART UNIT	PAPER NUMBER
			2143	

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/081,801	WILLIAMS, JOEL R.
	Examiner Fatima Ast	Art Unit 2143

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 22 February 2002.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-20 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-20 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 22 February 2002 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.
 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 316, 317 (see applicant's description p 9). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 8-9 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ayd (US 6,025,989).

4. Regarding claim 1, Ayd discloses a system comprising: a disk drive (column 3 lines 1-3), wherein the disk drive is identified as included in a "removable chassis", and

a CPU subsystem (column 2 lines 64-67), wherein the CPU subsystem is identified as a "logic chassis". Ayd teaches the CPU subsystem mechanically coupled directly to said disk drive (column 3 lines 17-24) and conforming approximately to the height and width of disk drive (Fig. 1), wherein element 14 is the disk drive and element 12 is the CPU subsystem. Ayd teaches a connection between said CPU subsystem and said disk drive control bus requiring no external wires or cables and a connection between said CPU subsystem and said disk drive to provide power to said disk drive from said CPU subsystem requiring no external wires or cables (Fig. 1), wherein elements 38, 39, 42 and 43 are connectors between the disk drive and the CPU subsystem (see also column 3 lines 17-25).

5. Ayd does not specifically enumerate a system for providing a server, however, Ayd does teach a system for providing a node assembly for a rack mounted multiprocessor computer (column 1 lines 44-46). The node assembly of Ayd is a computer as it contains a processor, memory, input/output functionality and storage and further the node assembly is a part of a multiprocessor computer (column 1 lines 44-45, Fig. 4). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention for the invention of Ayd to act as a system for providing a server, as Ayd's invention is a computer and further is a modular node assembly for a rack mounted multiprocessor computer which is known in the art as a typical hardware configuration for a server (see reference not relied upon Newton's Telecom Dictionary p 757).

6. Claim 8 is a method claim that corresponds to the system taught by the applicant in claim 1. Claim 8 is therefore rejected on the same basis as claim 1 as all of the elements of claim 8 have been addressed in the rejection of claim 1 above.

7. Claim 15 is an apparatus claim to a server that corresponds to the system taught by the applicant in claim 1. Claim 15 is therefore rejected on the same basis as claim 1 as all of the elements of claim 15 have been addressed in the rejection of claim 1 above.

8. Regarding claims 2, 9 and 16, Ayd discloses an electrical disk bus connection from the CPU subsystem to at least one additional disk drive (column 3 lines 1-3). Ayd teaches the CPU subsystem, which is identified as the logic chassis, as being coupled to a pair of disk drives.

9. Claims 3-5, 10-12 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ayd as applied to claims 2, 9 and 16 above, and further in view of Savage ("Disk Arrays Challenge DASD" Savage, J.A.).

10. Regarding claims 3, 10 and 17, Ayd discloses the plurality of disks (column 3 lines 1-3), however Ayd does not specifically enumerate said disks are arranged to operate as a RAID disk array. Savage teaches a typical RAID array consisting of a plurality of disk drives (4th paragraph). It would have been obvious to arrange the plurality of disks of the invention of Ayd to operate as a RAID disk array as described by Savage in order to gain the advantages of greater capacity, speed and fault tolerance as taught by Savage.

11. Regarding claims 4-5, 11-12 and 18, Ayd discloses at least two node assemblies in a single enclosure (column 3 lines 45-50). As noted in claims 1, 8 and 15 above, it would have been obvious for the node assemblies to be servers. It would have been obvious for the grouping of the at least two nodes of Ayd's invention to be a server farm as it is known in the art that a server farm is merely a collection of a group of computers providing network services (see reference not relied upon Webster's New World™ Computer Dictionary, Ninth Edition p 331 definition of "server farm").

12. Claims 6-7, 13-14 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ayd as applied to claims 1, 8 and 15 above, and further in view of Mazingo ("Internet server load balancing" Mazingo, Sue).

13. Regarding claims 6, 13 and 19, Ayd does not specifically enumerate at least one server system providing redundancy for at least one other server system. Mazingo teaches a plurality of servers in a server farm providing the same data content or application service (3rd paragraph). It would have been obvious to combine the redundancy as taught by Mazingo with the server farm of Ayd in order to gain the advantage of fault tolerance and intelligent load balancing as taught by Savage.

14. Regarding claims 7, 14 and 20, Mazingo discloses two or more server systems are used to share a server load (2nd paragraph).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fatima Ast whose telephone number is (571) 272-7217. The examiner can normally be reached on M-F, 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DAVID WILEY
ADVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100